CITY OF ISSAQUAH
MITIGATED DETERMINATION OF NONSIGNIFICANCE (MDNS)

Description of Proposal: The City of Issaquah is proposing to construct a new roadway and crossings of Issaquah Creek (mainstem and North Fork) along with other various roadway improvements to reduce existing traffic congestion and enhance the transportation network's future capacity for vehicle and non-motorized use.

The planned roadway improvements as described below may be altered and adjusted based on refinement of the design through the permit process and due to available funding. Changes may include eliminating entire segments of the road improvements, adjusting channelization, and reducing street components such as sidewalks or bicycle lanes. This SEPA determination is intended to evaluate a 'worst-case scenario" in regards to the environmental impacts of the proposed roadway improvements.

The project improvements include:

1. New Roadway Connection – Construct a new road extension of SE 62nd St from 221st Pl SE to Lake Drive; providing an additional access to the Pickering Place shopping area from East Lake Sammamish Parkway. Roundabouts would be constructed at the east and west ends of the new roadway. The east roundabout would include an exclusive northbound to eastbound slip lane to serve the heavy right turn movement from 4th Ave NW to SE 62nd St. The new roadway would include two vehicle travel lanes, bicycle lanes and sidewalks. New bridges would be constructed to cross Issaquah Creek and the North Fork Issaquah Creek. The new road would be elevated to minimize impacts to wetlands and to allow floodwater passage. The south portion of Lake Drive, north of the west roundabout, would be improved with 2 traffic lanes, bicycle lanes and sidewalks.
2. SE 62nd Street - Widen SE 62nd Street from two to four lanes at the intersection with East Lake Sammamish Parkway; including 2 exclusive right-turn lanes, a single through-lane and a single left turn lane. This improvement is consistent with the road design for SE 62nd St as identified in the previous I-90 Undercrossing Study (4th Ave NW). A new one to two lane roundabout would be constructed at the west end of SE 62nd St to connect to the new elevated roadway and to 221st Place SE.
3. East Lake Sammamish Parkway - Widen the west side of East Lake Sammamish Parkway SE between Black Nugget Road and Issaquah-Fall City Road; to add a second southbound vehicle through-lane, sidewalk and bicycle lane.
4. 221st Place SE - Improve east side of 221st Pl SE from SE 56th St to SE 62nd St; to complete sections of curb, gutter, and sidewalk, add landscape pockets, and stormwater improvements. No improvements are planned along the west side of 221st Pl SE to avoid further encroachment into the stream buffer of the North Fork of Issaquah Creek.
5. SR-900 & 12th Avenue NW Intersection – Add a northbound to eastbound exclusive right turn lane on SR-900 (17th Ave NW) at the intersection with 12th Ave NW, and widen 12th Ave NW to add a second westbound to southbound left turn lane approaching the intersection at SR-900.

Proponent: City of Issaquah Public Works Engineering Department
P.O. Box 1307
Issaquah, WA. 98027
Attn: Sheldon Lynne

Project Name/ Permit Number: North Issaquah Roadway Network Improvements - ASDP13-00001/SHO13-00007

Location of Proposal: All road improvements are located north of I-90. See project description above. The project improvements are more generally located in Sections 20 and 21, Township 24 North, Range 6 East.

Lead Agency: City of Issaquah

Determination: The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW

43.21C.030(2)(c). This decision was made after review of a completed expanded environmental checklist and other information on file with the lead agency. This information is available to the public on request.

Comment/Appeal Period: This MDNS is issued under WAC 197-11-340(2) and 197-11-680(3)(a)vii. There is a 21-day combined comment/appeal period for this determination, between **August 6, 2014 and August 27, 2014.** Anyone wishing to comment may submit written comments to the Responsible Official. The Responsible Official will reconsider the determination based on timely comments. Any person aggrieved by this determination may appeal by filing a Notice of Appeal with the City of Issaquah Permit Center. Appellants should prepare specific factual objections. Copies of the environmental determination and other project application materials are available from the Issaquah Development Services Department, 1775 12th Avenue NW.

Appeals of this SEPA determination must be consolidated with appeal of the underlying permit, per IMC 18.04.250.

Responsible Official: Peter Rosen

Position/Title: Senior Environmental Planner

Address/Phone: P.O. Box 1307, Issaquah, WA 98027-1307 (425) 837-3094

Date: 8/6/2014 **Signature:** Peter Rosen

Notes:

1) This threshold determination is based on review of the following application materials and supporting technical studies included in the expanded Environmental Checklist:
   1. *Roadway Improvement Plans (30% design drawings) – dated December 31, 2012*
   2. *SEPA Environmental Checklist – dated December 2012*
   3. *Geotechnical Report, North Issaquah Proposed Bridge, PanGEO, Inc. (Appendix A), August 2012*
   4. *Draft Geotechnical Report, North Issaquah Roadway Improvements, PanGEO, Inc. (Appendix B), September 2012*
   5. *Critical Areas Report and Conceptual Mitigation Plan, (Appendix C), October 2012*
   6. *Cultural Resources Memorandum, ESA Paragon, (Appendix D), May 2012*
   7. *Transportation Operation Analysis, Transportation Solutions, Inc., (Appendix E), October2012*
   8. *SE 62nd St/4th Ave NW Roundabout Memo, Design Operations Analysis, Appendix B of Transportation Operation Analysis, October2012*
   9. *12th Ave NW Alternative Improvements Memo, Appendix C of Transportation Operation Analysis, October2012*
   10. *Detailed Level of Service (LOS) Tables, Appendix D of Transportation Operation Analysis, October2012*

These materials are located at the Issaquah Development Services Department, 1775 12th Avenue NW, and are available for public review.

2) Issuance of this threshold determination does not constitute approval of the permit. The proposal will be reviewed for compliance with all applicable City of Issaquah codes, which regulate development activities, including the Land Use Code, Critical Area Regulations, Building Codes, Clearing and Grading Ordinance, and Surface Water Design Manual.

Findings:

1. **Project Revisions** – The planned roadway improvements may be revised and adjusted based on refinement of the design and due to available funding. Changes may include eliminating entire segments of the road improvements, adjusting channelization, and reducing components such as sidewalks or bicycle lanes. This SEPA determination is intended to evaluate a 'worst-case scenario" in regards to environmental impacts of the proposed roadway improvements.

Additional SEPA review or documentation may be required to address project revisions, consistent with WAC 197-11-600. Additional SEPA review may be limited to adding information into the record as an Addendum. A new SEPA threshold determination may be issued if there are substantial changes to the road design or project elements that would result in probable significant adverse environmental impacts that have not been addressed in this SEPA determination. City code requirements that address/mitigate impacts or mitigation included as part of the project proposal would be considered in determining the appropriate SEPA review or documentation.

2. **State/Federal Agency Permit Review** - The project proposal will require Federal and State agency review and permits prior to construction. The wetland impacts, relocation of the North Fork of Issaquah Creek, and bridge/stream crossings will require review by the U.S. Army Corps of Engineers (ACOE), State Department of Ecology (DOE), and the Washington Department of Fish and Wildlife (WDFW). The ACOE review will also address potential impacts under Section 7 of the Endangered Species Act (ESA) and compliance with Section 106 of the National Historic Preservation Act. The Federal and State agencies review will also include measures necessary to mitigate construction and long-term impacts of the project.

3. **Land Use** – The proposed road improvements are consistent with the City's Comprehensive Plan and zoning. The Central Issaquah Plan, a subarea plan adopted in April 2013, includes the commercial core of Issaquah north and south of 1-90. The Central Issaquah Plan included future road improvements to accommodate the planned growth. The proposed North Issaquah road improvements are consistent with the Central Issaquah Plan and the Draft/Final EIS on the Central Issaquah Subarea Plan. The proposed road improvements are included in the City's Transportation Improvement Program (TIP).

The Central Issaquah Plan EIS traffic model and analysis projected future traffic generation based on anticipated land use growth and included planned road improvements. The new roadway connection from SE 62nd St/221st Pl SE to Lake Drive was included as a planned improvement in the EIS traffic model for the Action Alternatives (DEIS, Figure 3.6-4). The projected level of service (LOS) at intersections in the North Issaquah area was greatly improved under the Action Alternatives that included the planned road improvements versus the No Action Alternative which was based on the previous Comprehensive Plan/Zoning growth levels without the planned road connection.

The North Issaquah roadway improvements have been designed consistent with the vision and long-term objectives of the Issaquah Central Plan, and with the road standards in the Central Issaquah Development Design Standards to the extent feasible. The improvements incorporate bicycle lanes, sidewalks, street trees, and narrow vehicle lanes to support non-motorized transportation.

4. **Property Acquisition** – The proposed road improvements would require acquisition of property for City right-of-way. Property owners will receive just compensation for the property the City acquires either through a mutually negotiated agreement or a condemnation proceeding. The economic impacts of property acquisition or condemnation is not required as part of SEPA review.

5. **Traffic** – The overall objective of the proposed North Issaquah Roadway Improvements is to add capacity to and throughout the Issaquah valley floor area north of I-90. In addition to the improvements to local traffic operations, the North Issaquah Roadway Improvements would also provide drivers and non-motorized road users additional route options and flexibility. The proposed road improvements would not generate new or additional traffic trips, though it would result in changes to travel patterns in the vicinity of the project improvements.

Currently, local east-west circulation in the North Issaquah area is limited to SE 56th St. The proposed, new roadway connection from SE 62nd St/221st Pl SE to Lake Drive would provide a second east-west road

connection that links with existing north-south roads to provide a more complete network of streets. This would reduce existing traffic volumes using SE 56th Street and 10th Ave NW/11th Ave NW to access Pickering Place from East Lake Sammamish Parkway because vehicles would choose to access the area via SE 62nd St and the new roadway connection. This network improvement would provide for more options for travel within and through the North Issaquah area.

A Traffic Operations Analysis (Transportation Solutions, Inc.) was prepared to review existing traffic conditions and to evaluate future traffic operations with and without the proposed North Issaquah Roadway Improvements. For purposes of the study, a design year of 2030 was used because it corresponds to other City planning targets, the Central Issaquah Plan, and the City's traffic model. The traffic study includes the same assumptions for the analysis of traffic operations with the North Issaquah Roadway Improvements (Action Alternative) and without (the No-Action Alternative) the project improvements. These assumptions include future land use projections and other future major traffic improvements planned in the City's Transportation Facilities Plan (TFP) and the Transportation Improvement Plan (TIP). This allows for a comparison of the benefits and impacts of the Action Alternative (proposed roadway improvements) and the No-Action Alternative. The traffic study evaluates the traffic volumes and the level of service (LOS) at intersections in the immediate vicinity of the site, as well as those intersections where traffic volumes would increase or decrease by 30 or more new PM peak hour trips. This approach illustrates both the adverse and positive changes to travel patterns resulting from road network changes associated with the North Issaquah Roadway Improvements.

The City's traffic demand model used to evaluate the proposed roadway improvements assigns traffic to the City street system based on travel times along alternative routes, and not exclusively based on intersection delays. This results in additional traffic being assigned to intersections and movements where additional capacity is provided as a result of the proposed roadway improvements. This explains why an increase or decrease in traffic volumes doesn't necessarily correspond to changes in vehicle delay.

The level of service (LOS) analysis for intersections in the immediate vicinity of the proposed roadway improvements is summarized in the table below for both the Action and No-Action Alternatives:

Table 4 – 2030 Level of Service Summary - Immediate LID Vicinity

Intersection		2030 No-Action			2030 Action[1]		
		LOS	Delay	V/C	LOS	Delay	V/C
4	12th Ave NW/NW Sammamish Rd/SR 900	D	43.5	0.99	D	41.2	0.85
5	11th Ave NW/NW Sammamish Rd	B	15.4	0.80	B	16.3	0.90
6	10th Ave NW/ NW Sammamish Rd	C	28.9	0.91	C	26.4	0.93
7	221st Place SE/SE 56th Street	F	136.0	1.32	F	100.8	1.26
8	ELSP/SE 56th Street	F	153.8	1.18	F	138.2	1.15
9	ELSP/SE Black Nugget Rd	C	20.0	0.73	B	15.9	0.71
10	ELSP/SE 62nd St	F	288.1	1.78	E	78.4	1.14
11	ELSP/SE Issaquah-Fall City Rd	F	91.9	1.14	E	70.7	1.12
62	221st Place SE/SE 62nd St	F	173.3	1.33	B	10.9	-
79	4th Ave NW/NW Gilman Blvd	F	96.1	1.11	F	115.8	1.12

1. Intersections highlighted in green indicate a reduction in average vehicle delays of five or more seconds. Intersections where average vehicle delays increase by five or more seconds are highlighted in red.

Table 4 above indicates that the LOS and/or average vehicle delay at all intersections in the immediate vicinity of the improvements would be reduced with the 2030 Action alternative, except at the intersection of 4th Ave NW/NW Gilman Blvd. There would be significant reductions in delays at the following intersections:

- 221st Pl SE/SE 56th St (-35.2 second reduction)
- ELSP/SE 62nd St (-209.7 second reduction)
- ELSP/SE Issaquah Fall-City Rd (-21.2 second reduction)
- 221st Pl SE/SE 62nd St (-162.4 second reduction)

At the intersection of 4th Ave NW/NW Gilman Blvd. average delays would increase by approximately 20 seconds under the Action alternative. This increase is likely the result of the traffic model adding trip distribution to this intersection based on the additional capacity created by improvements to SE 62nd St, making it a more attractive alternative route to East Lake Sammamish Parkway. -

The Transportation Operations Analysis also evaluated intersections outside the immediate project area, where traffic volumes would increase or decrease by 30 or more new PM peak hour trips as a result of the proposed road improvements. The City's Transportation Concurrency Management uses 30 trips as a threshold to identify impacted intersections. Eight (8) intersections would have reduced intersection volumes and decreased vehicle delays. Significant reductions in delays are anticipated at the following intersections:

- NW Gilman Blvd/SR 900 (-13.0 second reduction)
- NW Gilman Blvd/Front St (-62.5 second reduction)
- NW Maple St/SR 900 (-11.4 second reduction)
- 4th Ave NW/Post Office Access (-32.1 second reduction)
- NW Juniper Blvd/NW Gilman St (-44.2 second reduction)
- 11th Ave NW/Lake Dr (-8.21 second reduction)

One intersection, SE Issaquah Fall-City Road/SE Black Nugget Road, would experience greater intersection delays (+16.2 seconds increase) with the proposed roadway improvements versus the No-Action Alternative. The intersection would operate at LOS F under both alternatives. The increased delay at this intersection is attributable to changes in traffic patterns; with increased volumes (and delays) on some critical movements which more than offset lower volumes and delays on non-critical intersection movements.

Traffic Alternatives Considered

The Transportation Operations Analysis includes an alternatives analysis of two road improvement segments:

12th Ave NW widening – An alternative to widening of 12th Ave NW was evaluated because the widening for improvements to include a second left-turn lane and bicycle lane would encroach onto adjacent private properties. The alternative evaluated widening 11th Ave NW to accommodate a triple northbound to westbound left-turn lane from 11th Ave NW onto NW Sammamish Rd, conversion of the westbound high occupancy vehicle lane on NW Sammamish Rd to a general purpose lane and widening on 17th Ave SE at 12th Ave NW and the approach to the I-90 on-ramps to increase intersection capacity. The analysis showed that the proposed improvements to 12th Ave NW would provide the greatest benefits to vehicle travel times. (12th Ave NW Alternative Improvements Memo, Appendix C of Transportation Operation Analysis)

SE 62nd St/4th Ave NW Roundabout Versus Intersection - An analysis was completed to compare traffic operations with a roundabout or with a traffic signal at the SE 62nd St/4th Ave NW/221st Pl SE intersection (Appendix B to Appendix E, SE 62nd St/4th Ave NW Roundabout Memo). The analysis concluded that a signalized intersection would operate at an overall LOS D and a roundabout at LOS C. The northbound movements would operate at LOS E with a signalized intersection compared to LOS C with roundabout. The analysis also concluded that vehicle queue lengths would be significantly shorter with a roundabout intersection configuration. (SE 62nd St/4th Ave NW Roundabout Memo, Design Operations Analysis, Appendix B of Transportation Operation Analysis)

Site Access Impacts

The proposed project would result in impacts to driveway accesses and parking on adjacent private properties. The City will work with property owners to resolve these issues, which may include driveway re-configuration or re-location of driveways accesses.

The project would impact the site access of an existing commercial mini-storage, boat and vehicle storage business located at the northwest corner of ELSP and SE 62nd St. The proposed road improvements on SE 62nd St would result in closing an existing access driveway to the site. The existing driveway is located adjacent to the intersection; there is little to no offset spacing between the driveway and intersection curb

return. The driveway is presently fenced off and not extensively used for commercial access because the close proximity of the driveway to the intersection impacts intersection safety and operations. There is another site driveway on SE 62nd St, further to the west and approximately 350 feet from the intersection, which also currently provides access to the site off SE 62nd St. The proposed improvements on SE 62nd St and construction of the roundabout would necessitate limiting the turning movements for this driveway access to a right-in/right-out. The project impacts on the driveway accesses off SE 62nd St cannot be directly mitigated due to traffic safety. However, the site also has 2 driveway accesses off ELSP. These driveways may need to be re-located as a result of the project, but the accesses would not be eliminated or restricted. Therefore, the impacts limiting use of the driveways on SE 62nd St are not considered a significant adverse environmental impact.

6. **Soils/Geology** – Two geotechnical studies (PanGEO Inc.) were prepared to evaluate soils and subsurface conditions for the proposed roadway improvements and for the elevated connector road between SE 62nd St/221st Place SE and Lake Drive. For the elevated connector road, the report recommends piles or drilled shafts to support the bridge as opposed to conventional footings, because the soil conditions would be prone to liquefaction during a strong seismic event.

Land clearing, excavation, and filling would be required for the roadway improvements, bridge footings, bridge pilings and construction staging. Preliminary estimates indicate a balance of excavation and fill quantities; with approximately 14,600 cubic yards of excavation and 11,600 cubic yards of fill. To the extent feasible, native soils would be retained onsite and used for fill and excess soil would be disposed at approved off-site locations. Where there is a need to import soil/rock, the material would be supplied from approved sources.

Potential erosion impacts that could occur during clearing and grading would be minimized and mitigated by City requirements for temporary erosion and sedimentation control (TESC) measures.

7. **Flooding** – Portions of the proposed road improvements would be located within the 100-year FEMA floodplain of Issaquah Creek and the North Fork Issaquah Creek. The floodplains of the 2 creeks merge in the area between 221st Pl SE and Issaquah Creek. The new road connection between SE 62nd St/221st Place SE and Pickering Place would be elevated using a bridge structure constructed on piers that would span most of the floodplain width and thus will allow for the unimpeded passage of floodwaters. This would mitigate for potential flood impacts versus constructing this road section on-grade; importing fill for the road construction could create a dam and block movement of floodwaters.

The roundabout located at the intersection of SE 62nd St and 221st Place SE would require fill within the 100-year floodplain. A flood hazard permit will be required to address the import of fill material and compensatory storage for mitigation. A detailed hydraulic study will be conducted as part of this permit application. It is anticipated that compensatory storage will be provided with the proposed relocation of the North Fork Issaquah Creek.

8. **Stormwater** – The proposed road improvements would result in approximately 170,000 SF of new impervious surfaces. Design of the road improvements would include a variety of stormwater management facilities and strategies to comply with the City's adopted Surface Water Design Manual (IMC Chapter 13.28), the NPDES Phase 2 Municipal Stormwater Permit, and other requirements in effect at the time of construction permit submittal. The design and location of stormwater detention and water quality treatment facilities will be determined as the plans are further refined. Compliance with City stormwater requirements would mitigate the impacts on receiving waters following State Department of Ecology design criteria, as dictated through the Phase 2 permit and reflected in the adopted Surface Water Design Manual.

The project would include standard construction best management practices (BMPs) and temporary erosion and sedimentation control (TESC) measures to minimize impacts to water quality and to protect surface waters.

9. **Critical Areas** – The study area is located in the Issaquah Creek Basin, within the Cedar River-Lake Washington-Sammamish Water Resources Inventory Area (WRIA 8). The proposed project corridor is partially within the floodplains of Issaquah Creek and the North Fork Issaquah Creek. In general, wetland and stream functions in this portion of the Issaquah Creek basin are degraded because of the proximity to urban development and historic modifications/alterations at both a site-specific and watershed scale that have disconnected wetlands from the Issaquah Creek and North Fork floodplains.

A Critical Areas Report and Conceptual Mitigation Plan (ESA, October 2012) was prepared to identify wetland areas and streams in the project area, evaluate and quantify potential project impacts, and to recommend mitigation measures to address project impacts. The Critical Areas Report also addresses fish and wildlife habitat conservation areas, flood hazard areas, critical aquifer recharge areas (CARAs), soils, and geologically hazardous areas.

The Critical Area Report distinguishes between direct and indirect impacts in describing and quantifying project impacts to wetlands, wetland buffers and stream/stream buffer areas. Direct impacts include permanent loss of wetland or wetland/stream buffer due to fill activity resulting from road construction. Indirect impacts would result from shading; primarily from the elevated new road connector. Shading would permanently alter wetland functions since persistent, woody vegetation would not be able to grow under the bridge structure, though indirect shading impacts would not impact hydrologic functions of the wetlands. The indirect impacts of the proposal are mitigated at a lower mitigation ratio because some wetland functions would remain. (See details on project mitigation below)

When designing the proposed road improvements, the project team followed City, State, and Federal requirements for mitigation sequencing; to first avoid and minimize critical area impacts before compensating for impacts. The alignment of the new road connection was adjusted to minimize impacts, and designed as an elevated structure to minimize fill impacts of wetlands, stream and floodplain critical areas. Other project improvements along existing roads include using retaining walls to avoid fill and minimize critical area impacts.

Critical Area Impacts of New Roadway at 221st Pl SE/SE 62nd Ave Intersection/Roundabout

The most significant location of critical area (wetland, stream) impacts would occur at the east end of the new connector road; at the east intersection/roundabout where the new road would connect to 221st Pl SE/SE 62nd Ave. The east end of the new connector road has been aligned between 2 existing wetland mitigation sites and designed to minimize impacts to the wetlands and wetland buffers on these mitigation sites. The new road would be aligned to the north of the City-owned wetland mitigation site (Wetland T) in Darst Park which was constructed in 2010, and to the south of the Costco wetland mitigation site which was constructed in 2012. The new connector road would directly impact 1,291 SF of Wetland T and have an indirect, shade impact of 1,023 SF. The portion of Wetland T that would be directly impacted by the new connector road is a naturally-occurring part of the wetland complex; the impacted segment is not a created wetland area that was constructed for mitigation purposes. There would be no direct impacts to the Costco mitigation site wetland; the proposal would have 1,541 SF of indirect, shade impacts to this wetland. The proposed connector road would directly impact 11,229 SF of the overlapping buffers of Wetland T/Costco mitigation site/North Fork stream buffer and have indirect shade impacts to 19,324 SF of the buffer areas.

The North Fork Issaquah Creek is currently located 5 to 10 feet to the west of 221st Pl SE near the intersection with SE 62nd St. The proposed roundabout and elevated connector road beginning at this intersection would necessitate relocating the stream channel to the west. The North Fork Creek relocation has been previously identified as a priority City restoration project and the preliminary relocation plans have been incorporated into the proposal's design. The North Fork relocation would begin from the west side of the existing bridge under 4th Ave SW and would end approximately 30 feet to the south of the existing bridge at SE 61st St. Construction of the bridge and placement of fill would directly impact 0.012 acres (5,034 SF) along 268 linear feet of the North Fork. The new stream channel would be constructed partly within existing wetlands; 0.11

acres of Wetland T would be converted to the new stream channel. This impact would be mitigated by wetland creation located adjacent to the new stream channel.

Wetlands

Sixteen (16) wetlands were identified and delineated in the project area ranging in size from 267 SF to 29,800 SF. The wetlands were classified/rated using the Washington State Department of Ecology's *Wetland Rating System for Western Washington* (Hruby, 2004) and wetland categories in the project area include: one Category II wetland (75-foot wetland buffer required), eight Category III wetlands (50-foot wetland buffer required), and seven Category IV wetlands (0-25 foot wetland buffer required).

The proposal would result in a total of 6,866 SF of direct wetland fill impacts, 2,564 SF of indirect impacts and 570 SF of fragmentation impacts. Direct impacts would result from fill activity associated with construction of roads and retaining walls. Indirect impacts are due primarily to shading from the elevated new road connection between SE 62nd Street/221st Place SE and Lake Drive. Fragmentation impacts are where the total wetland area would be reduced by more than half or where wetland areas would be disconnected from the main body of the wetland making them unsustainable over the long term.

Wetlands directly impacted by the proposal would be primarily Category III and IV wetlands with low to moderately low functions. The portions of Category II wetlands that would be directly impacted are dominated by invasive plant species and lack native vegetation diversity and structure.

Wetland and Stream Buffer Impacts

The proposal would also result in impacts to wetland and stream buffer areas. The proposal would directly impact 39,527 SF (0.91 acres) of wetland/stream buffer. There would be 29,477 SF (0.68 acres) of indirect buffer impacts resulting from shading due to the bridges/elevated structures. The proposal would also result in 27,781 SF of temporary buffer impacts; resulting from clearing and re-grading slopes adjacent to the proposed roadway improvements.

There are project areas where stream and wetland buffer areas overlap and the Critical Area Report grouped and quantified the stream/wetland buffer impacts together. There is 11,229 SF of stream/wetland buffer impact near the intersection of 221st Pl SE/SE 62nd St, where the stream buffer of the North Fork overlaps with the wetland buffers of Wetland T (City wetland mitigation site) and the Costco wetland mitigation. There would also be 19,324 SF of indirect shading impacts to this stream/wetland buffer area. In addition, on the south side of SE 62nd St to the east of 4th Ave SW, there would be 11,576 SF of stream/wetland buffer impacts, where the North Fork buffer overlaps with buffers of Wetlands V and E.

Wetland mitigation – The proposal would mitigate for direct and indirect wetland impacts, consistent with the City's Critical Areas Regulations. The City's regulations establish mitigation/replacement ratios for impacts to wetlands, consistent with the Washington State Department of Ecology (DOE) guidance, *Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance* (Ecology, 2006a).

Direct, permanent impacts to Category II wetlands require 3:1 ratio of wetland creation or reestablishment relative to impacts. Category III wetlands require a 2:1 mitigation ratio and Category IV wetlands (greater than 2,500 SF) require a 1.5:1 mitigation ratio.

Indirect project impacts resulting from shading of bridge/elevated structures would result in impacts to wetland functions and values because the shading would prevent growth of woody vegetation, though some functions (hydrologic) would remain. Mitigation for indirect impacts is not specifically addressed in City code or agency guidance. The project proponent proposes wetland creation or reestablishment at a 1:1 mitigation ratio for indirect impacts to emergent plat communities and 1.25:1 for scrub-shrub and forested plant communities.

The table below summarizes project wetland impacts and proposed mitigation: .

Table 8. Wetland Mitigation Summary

	Wetland Category	Vegetation Community Affected	Direct Impact Area, square feet (acres)	Mitigation for Direct Impacts		Indirect Impact Area square feet (acres)		Mitigation for Indirect Impacts	
				Ratio (C/R)	Area, square feet (acres)	Shade	Fragmentation	Ratio (C/R)	Area, square feet (acres)
T	II	PEM	1,291	3:1 [a]	3,873	1,023	0	1:1	1,023
Costco Mitigation Site	II	PFO	0	n/a	0	1,541	0	1.25:1	1,927
	Total Category II		**1,291 (0.03)**		**3,873 (0.09)**	**2,564 (0.06)**	**0**		**2,950 (0.07)**
A	III	PEM	2,454	2:1 [a]	4,908	0	0	n/a	0
O	III	PEM/PSS	588	2:1 [a]	1,176	0	0	n/a	0
	Total Category III		**3,042 (0.07)**		**6,084 (0.14)**	**0**	**0**		**0**
M2	IV	PEM	416	1:1 [b]	416	0	301	1:1	301
B	IV	PEM/PSS	147	1.5:1 [a]	221	0	0	n/a	0
C	IV	PEM	355	1.5:1 [a]	533	0	0	n/a	0
D	IV	PSS/PFO	1,615	1.5:1 [a]	2,423	0	269	1.25:1	337
	Total Category IV		**2,533 (0.06)**		**3,593 (0.08)**	**0**	**570 (0.01)**		**638 (0.01)**
	Grand Total		**6,866 (0.16)**		**13,550 (0.31)**	**2,564 (0.06)**	**570 (0.01)**		**3,588 (0.08)**

[a] Mitigation ratios for wetland creation/reestablishment from Joint Guidance (Ecology, 2006a).
[b] Mitigation ratio for wetland creation based on IMC 18.10.730.F.

Streams

The mainstem of Issaquah Creek, the North Fork of Issaquah Creek, and 2 minor tributaries to the North Fork are located in the project area.

Issaquah Creek is a Class 1 stream ("shoreline of the state"). Issaquah Creek flows south to north and the project site is located in the lower reach of the Issaquah Creek basin. Issaquah Creek is spawning habitat for resident cutthroat; fall Chinook, Coho and Sockeye salmon; Kokanee salmon; and winter Steelhead (WDFW, 2010). The stream channel in the project area is incised approximately 10 feet. The City's Critical Areas Regulations require a 100-foot stream buffer.

The North Fork of Issaquah Creek is a Class 2 stream with salmonids, and a 100-foot stream buffer is required in the City's Critical Areas Regulations. It flows southeast to northwest through the project area. The North Fork joins the mainstem of Issaquah Creek south of SE 56th St. There is an existing bridge crossing located at the intersection of 4th Ave NW and 221st Pl SE/SE 62nd St. The North Fork is also documented spawning and rearing habitat for resident cutthroat; fall Chinook, Coho and Sockeye salmon; and winter Steelhead (WDFW, 2010). The stream channel though the project area is low-gradient (approximately 0.25% slope), has limited woody debris, and is dominated by long glides or runs with few pools or riffles.

There are 2 minor tributaries (Tributary 1 and K) to the North Fork, located to the northeast of the intersection of SE 60th St and 221st Pl, and to the east of 221st Pl SE. Both tributaries are highly altered features; characterized by armored banks and modified slopes to channelize drainage. Tributary 1 begins from drainage out of Wetland G (located in the East Lake Sammamish trail corridor) and flows west, passing through a culvert before discharging into the North Fork. No salmonid use has been documented and use by resident fish is unlikely based on the length of the culvert under 221st Pl SE. Tributary 1 is classified as a Type Np stream (WDNR stream type) and a Class 4 stream in the City code. Tributary K, approximately 1 to 2 feet

wide, begins from drainage in a ditch adjacent to 221st Pl SE and drains into Tributary K. No fish have been documented and Tributary K is classified as a Type Ns stream (WDNR stream type) and a Class 4 stream in the City code. Class 4 streams require a 25-foot buffer. The project proposal would not have direct or indirect impacts on the tributaries referenced above.

The proposed project includes a new bridge crossing over Issaquah Creek, associated with the new elevated roadway connection between SE 62nd St/221st Pl SE and Lake Drive. The bridge would result in shading 2,523 SF along approximately 49 linear feet of the Issaquah Creek stream channel. The elevated road connection would result in 9,813 SF of indirect impacts to the buffer of Issaquah Creek.

The proposed roundabout and east end of the elevated connector road at the intersection of 221st Pl SE and SE 62nd St would require relocating the North Fork of Issaquah Creek stream channel to the west. The creek is currently located 5 to 10 feet to the west of this intersection. The North Fork relocation would begin from the west side of the existing bridge under 4th Ave NW and would end approximately 30 feet to the south of the existing bridge at SE 61st St. The new stream channel would be constructed partly within existing wetlands; 0.11 acres of Wetland T would be converted to the new stream channel. This impact would be mitigated by wetland creation located adjacent to the new stream channel. The North Fork relocation has been previously identified as a priority City restoration project and the preliminary relocation plans have been incorporated into the proposal's design. Construction of the bridge and placement of fill would directly impact 0.012 acres (5,034 SF) along 268 linear feet of the North Fork. It would have indirect, shade impacts of 2,215 SF along 65 linear feet.

The table below summarizes the wetland, stream and buffer impacts of the project and the proposed mitigation:

Table 9. Proposed Mitigation Summary

Type of Impact	Impact Area Acres, (linear feet, lf)	Mitigation Area Required, Acres	Mitigation Area Proposed, Acres (linear feet, lf)	Type of Mitigation Proposed	Mitigation Location
Wetland					
Direct	0.16	0.31	0.06	Creation	On-site
			0.25	Reestablishment	Off-site
			0.14 [a]	Enhancement	On-site
			0.18 [a]	Enhancement	Off-site
Indirect	0.07	0.08	0.08	Reestablishment	Off-site
Total	**0.23**	**0.39**	**0.71**		
Stream					
Direct	0.12 (268 lf)	--	(879 lf)	Relocation	On-site
Indirect	0.11 (114 lf)	--			
Total	**0.23 (382 lf)**	--	**(879 lf)**		
Buffer					
Direct	0.91	--	1.4	Enhancement	Off-site
Indirect	0.67	--	2.09 [a]	Restoration/ Enhancement	On-site
Temporary	0.64	--			
Total	**2.25**	--	**3.49**		

[a] Additional wetland and buffer enhancement has been provided in anticipation of potential impacts that are currently undetermined (e.g., bridge abutments, bridge pilings, construction access, etc.). Project impacts and associated mitigation acreage will be adjusted accordingly during future design phases. Minimum ratios identified in Section 5.1.4 will be met.

Specific impacts to wetlands/wetland buffers and stream buffers may change with the refinement of designs for the road improvements. The required mitigation may be adjusted proportionately to the project impacts, provided the mitigation ratios are consistent with the City's Critical Areas Regulations. Where the City's code doesn't specify a mitigation ratio for a type of impact, the mitigation shall adhere to the ratios and approach included in the critical area study for this project.

Final stream buffer enhancement plans are required for approval by the Issaquah Development Services Department (DSD) prior to issuing construction permits. Final plans shall include a planting plan, grading plan, and a 5-year monitoring/maintenance plan with performance standards for monitoring success of the enhancement planting and stream restoration.

Environmental Improvements/Benefits of the Proposed Mitigation

The goal of the proposed mitigation is no net loss and an overall net gain in wetland and stream functions. The wetland and stream mitigation objectives are to improve flood storage and fish and wildlife habitat within the Issaquah Creek and North Fork wetland and stream complex adjacent to the project area. Mitigation of wetland impacts is proposed both on-site and at an off-site location to address these regionally significant functions.

The on-site mitigation focuses on relocating the North Fork of Issaquah Creek (approximately 879 lineal feet of channel) to the west of the current channel; creating and enhancing wetlands adjacent to the new relocated North Fork stream channel to compensate for constructing the new stream channel in Wetland T (0.11 acres). Relocation of the North Fork would improve stream habitat and functions over current conditions. The key design elements and improvements include:

- North Fork would be relocated approximately 50 to 75 feet to the west of the current channel, providing a wider buffer from the road than current conditions (presently 5 to 10 feet).
- Relocation would create a more sinuous, meandering stream course and would include pools and installation of large woody debris, to create a more complex stream structure and improve in-stream habitat. The overall stream length would increase by approximately 600 lineal feet compared to the current condition.
- Stream buffer would be improved by removing non-native invasive vegetation and densely planting with native trees and shrubs.

The relocation and restoration of the lower portion of the North Fork has been identified as one of the highest ranking restoration opportunities within the City (*Stream and Riparian Areas Restoration Plan*, The Watershed Company, November 2006). It's also been identified as a Tier 1 restoration area in the WRIA 8 Chinook Salmon Conservation Plan.

On-site mitigation would also include wetland creation (0.06 acres), wetland enhancement (0.14 acres) and wetland/stream buffer restoration/enhancement (2.09 acres).

Off-site mitigation is proposed for wetland mitigation (wetland creation/reestablishment and wetland enhancement) and wetland/stream buffer restoration and enhancement. An off-site mitigation area would be located to the north of the roundabout at the 221st Pl SE/SE 62nd St intersection; in the confluence area and floodplains of Issaquah Creek and the North Fork Issaquah Creek. The objective is to provide off-channel wetland habitat adjacent to Issaquah Creek.

The City code allows for off-site mitigation within the same watershed where off-site mitigation would best achieve regional goals for flood storage, flood conveyance, habitat or other wetland functions. At the state and federal levels, preferred mitigation strategies are also focused on improving watershed processes and functions (e.g. mitigation banking, watershed-based mitigation) rather than a strict on-site and in-kind mitigation approach. The proposed off-site mitigation would expand the Issaquah Creek and North Fork wetland and riparian complex and protect existing critical areas and the associated floodplain. The off-site mitigation area is currently zoned for multi-family and single-family development and the location of the

proposed mitigation would have the additional benefit of reducing the development potential within the ecologically-sensitive stream confluence area.

10. **Cultural resources** – A preliminary cultural resources screening (ESA Paragon) was prepared for the proposed project. The report includes information on the ethnographic, historic and archaeological context of the project area, and identifies sites and buildings listed on national/state/local preservation registers.

There are two recorded historic sites located in the project vicinity: the Seattle Lake Shore and Eastern Railway (45-KI-451) and the Pickering Farm (45-KI-452). The historic corridor of the Seattle, Lake Shore and Eastern Railway has been converted into the East Lake Sammamish Trail, and has been determined Not Eligible for listing in the National Register of Historic Places (NRHP). The Pickering Farm was listed on the NRHP in 1983, is listed on the Washington Heritage Register, and is recognized by the City as one of "Issaquah's Treasures." The proposed road improvements would not have direct impacts on the Pickering Farm site.

According to the Washington State Department of Archaeology and Historic Preservation (DAHP), the project area is mapped as having a high to very high probability for cultural resources and archeological remains. Additional cultural resources review should be conducted when project design plans are further developed and refined. The review should include subsurface investigation to assess project impacts. Any identified resources would need to be recorded with DAHP. A cultural resources review may also be required for permits from the U.S. Army Corps of Engineers, for compliance with Section 106 of the National Historic Preservation Act.

11. **Parks/Recreation** – The proposed road improvements would cross recreation and park areas. SE 62nd St between East Lake Sammamish Parkway and 221st Pl SE would be widened from 2 to 4 lanes where crossing the East Lake Sammamish Trail, a King County regional trail. To mitigate the impact on trail users, the City's proposal would construct a trail crossing underneath SE 62nd St. This would provide a continuous, uninterrupted, separated trail connection across SE 62nd St.

The City's Pickering Trail connects to the East Lake Sammamish Trail and crosses Issaquah Creek over a pedestrian bridge to the Pickering Place shopping area. On the east side of Issaquah Creek, the trail would be widened to 12 feet from the current 8-10 foot width. The pedestrian bridge would remain and provide a separate pedestrian/bicycle crossing from the new road structure and bridge crossing Issaquah Creek. The west end of the Pickering Trail would be modified to cross the new roadway where the trail turns toward the north.

The proposed new connector road between SE 62nd St/221st Place SE and Lake Drive would cross Darst Park, a City-owned natural open space park. As discussed in the Critical Areas section, the new connector road has been aligned to avoid impacts to the City's wetland mitigation site in Darst Park. There are no active uses in the park that would be impacted by the road improvements. Passive users of the park may be temporarily affected by construction activity, but no users or activities would be permanently displaced.

Mitigation Measures: The Mitigated Determination of Nonsignificance is based on the expanded SEPA checklist dated December 2012, including all the technical studies and supplemental information in the expanded checklist. The following SEPA mitigation measures shall be deemed conditions of the approval of the licensing decision pursuant to Chapter 18.10 of the Issaquah Land Use Code. All conditions are based on policies adopted by reference in the Land Use Code.

1. Specific impacts to wetlands/wetland buffers and stream buffers may change with the refinement of designs for the road improvements. The required mitigation may be adjusted proportionately to the project impacts, provided the mitigation ratios are consistent with the City's Critical Areas Regulations. Where the City's code doesn't specify a mitigation ratio for a type of impact, the mitigation shall adhere to the ratios and approach included in the critical area study for this project.
2. Final wetland/stream mitigation plans are required for approval by the Issaquah Development Services Department (DSD) prior to issuing construction permits. Final mitigation plans shall include a planting

plan, grading plan, and a 5-year monitoring/maintenance plan with performance standards for monitoring success of the enhancement planting and stream restoration.

3. Additional cultural resources review shall be conducted when project design plans are further developed and refined. The review shall include subsurface investigation to assess potential project impacts. The cultural resources review shall be submitted prior to issuance of construction permits.

cc: Washington State Department of Ecology
Washington State Department of Fish and Wildlife
Washington State Department of Archaeology & Historic Preservation
Muckleshoot Indian Tribe
U.S. Army Corps of Engineers
Parties of Record
Issaquah School District
King County Division of Parks and Recreation: attn: Robert Nunnenkamp
City of Sammamish Community Development Department
Sammamish Plateau Water and Sewer District
Issaquah Development Services Division
Issaquah Parks Department